

Sylvatic Plague as Found in California Counties: Kern, Tulare, Modoc, Lassen and San Luis Obispo.—The authors' discussion of the rather extensive distribution of sylvatic plague in different districts of California might be alarming were it not for the fact that, at the same time and in these same infested districts, only two human cases of plague were seen in 1934, and none, thus far, in 1935. The Federal, State and other authorities, upon whom devolves the responsibility of combating the spread of plague among the wild rodents (squirrels, rats and mice)—for it is from these lower animal reservoirs that an extension into populated districts may come—are to be congratulated for their careful studies concerning the foci of infected areas, and on the means taken to bring about the limitation and eradication of the disease. It must be remembered that the complete list of animals (mammals) that can act as supplementary hosts to the *Bacillus pestis* is yet to be worked out, although the authors call attention to instances pointing to cottontail and jack rabbits as belonging to the group of supplementary hosts.

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Why This Report on Sylvatic Plague Is of Significance.—Meyer and Eddie's report of the studies and surveys of sylvatic plague in California makes interesting reading for physicians, and especially so, when the serious outbreaks of human plague in California—San Francisco, 1900 to 1904 (bubonic plague); San Francisco and Oakland, 1907 and 1908 (bubonic plague); Oakland, 1919 (pneumonic plague); and Los Angeles, 1924 (pneumonic plague)—are kept in mind.

In the present era of generous spending by the Federal Government on survey projects of all kinds, it would seem quite proper that some funds were allocated to carry on investigations and studies making possible for the United States Public Health Service and the California State Board of Health to possess more extensive and accurate knowledge of this disease; which knowledge, should the plague again break out in metropolitan centers such as the San Francisco Bay region or Los Angeles, may well be of great value to help prevent immediate money loss running into hundreds of thousands of dollars, with however, remote ill results of even greater amount. It is gratifying to know that in spite of somewhat limited funds and personnel it has been possible to make so careful a survey and report as that which is printed in this issue.

CORPORATIONS CANNOT PRACTICE MEDICINE IN CALIFORNIA

Opinion of Judge C. J. Goodell of San Francisco.—In last month's issue, on page 324, comment was made on the opinion recently handed down by the Hon. C. J. Goodell of the Superior Court of the City and County of San Francisco, in which that jurist reaffirmed the legal principle that corporations cannot practice medicine in California. Through Dr. C. B. Pinkham, secretary of

the Board of Medical Examiners of the State of California, we have been able to secure a copy of Judge Goodell's memorandum-opinion and this will be found in the Special Articles section on page 460.

Its perusal, in connection with the opinion rendered by the Hon. Charles E. Hughes, Chief Justice of the Supreme Court of the United States, given on page 389 of last month's issue, is commended to all members of the California Medical Association.

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Opinion of Judge Hartley Shaw on Chiropractic-Naturopathic.—In the same Special Articles department of this number is also printed an illuminating opinion concerning some legal limitations of chiropractic and naturopathic practice. Readers of this journal may find that opinion likewise of interest. (See page 463.)

Other State Association and Component County Society News.—Additional news concerning the activities and work of the California Medical Association and its component county medical societies is printed in this issue, commencing on page 444.

EDITORIAL COMMENT†

DANGERS OF SKELETAL TRACTION

The appearance upon the market today of numerous pieces of excellent apparatus for the treatment of fractures justifies a word of warning against the indiscriminate use of skeletal traction by every doctor who has purchased one of these new gadgets.

No one will deny that great progress has been made in the treatment of fractures during the past decade. The World War demonstrated the value of immediate splinting and early traction in fractures of the long bones, and popularized the now indispensable Thomas splint. The more liberal use of the roentgen ray, the organization of fracture clinics in our large teaching hospitals with their follow-up clinics, the demands of industrial insurance carriers for less permanent disability from fractures and the growing menace of malpractice suits, have all contributed to this keener interest on the part of the profession and have resulted in better treatment of fractures.

Better mechanical aids were a natural outgrowth of this widespread interest in the fracture problem. It is more generally appreciated now than formerly that restoration of normal anatomical relationship is desirable, and that it usually results

† This department of CALIFORNIA AND WESTERN MEDICINE presents editorial comment by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to all members of the California and Nevada Medical Associations to submit brief editorial discussions suitable for publication in this department. No presentations should be over five hundred words in length.

in earlier union of the bone, and better and fuller function of the injured extremity. Few conscientious men are now content with poor anatomical reduction of a major fracture.

Skeletal traction has been the inevitable outcome of this desire to obtain anatomical reposition of the bone fragments. The heavy ice-tongs and Steinman pins, popular a few years ago, have in large measure been replaced by the lighter piano wire, introduced by Kirschner, with its minimum amount of foreign body. Several ingenious mechanical devices that are a great aid in the reduction of fractures of the long bones have recently appeared and are now flooding the market. Some of these are based on sound principles and possess real merit. In the hands of an intelligent and mechanically minded doctor such apparatus is a great aid in obtaining mechanical reduction of difficult fractures of the long bones.

The average doctor, however, especially in the smaller cities and towns, when shown this type of apparatus by a clever salesman, is soon convinced that he can solve all his fracture problems. The commercial exhibits at the state medical meeting remove all doubts as to the necessity of this type of treatment and the doctor buys a skeletal traction apparatus. He forgets that, as the late Dr. E. H. Nichols so aptly stated, the problem is more than that of gluing a broken chair-leg, for the skin, muscles, nerves, blood vessels, and lymphatics surround the bone, and frequently the soft tissue injury transcends in importance the injury to the bone.

It must not be forgotten, too, that the use of skeletal traction converts a simple fracture into a compound one, and enough emphasis is not being placed today upon the dangers inherent in the method. Doctors must learn that pins and wires should not be inserted indiscriminately through injured tissues, and that strict attention must be given to skin antisepsis. If skeletal traction is to be used, it must be constantly kept in mind that no foreign body should be inserted into any bone without adequate skin sterilization. Pins and wires should go through normal, healthy tissue, and never be inserted into devitalized, traumatized tissue. Antitetanic and gas gangrene serum should always be given, as in any compound fracture.

Within the past year the writer has seen two unfortunate results from failure to observe the fundamental surgical principles in the use of skeletal traction. One patient with a comminuted fracture of the os calcis, accompanied by considerable bruising and abrasions of the soft tissues of the lower leg and foot, had a steel wire inserted through the devitalized, ecchymotic area within twelve hours of injury. No attempt was made to reduce the fracture by manipulative means, and insufficient time was given for the soft tissues to regain their normal state. Severe infection developed, with sloughing of most of the tendons of the lower leg and foot, accompanied by an osteomyelitis of several bones of the foot. The osteomyelitis is still active ten months after the injury.

The other patient, who had a simple fracture of both bones of the forearm, had skeletal traction inserted without adequate skin preparation or the use of anaerobic serum. Gas gangrene developed, and amputation of the right arm above the elbow was necessary to save the patient's life.

Skeletal traction, when properly applied, is a great aid in replacing and holding fractured bones in anatomical position. Its dangers must be recognized and sound principles not forgotten, or disaster will result.

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THE TREATMENT OF FRACTURES OF THE FEMORAL NECK

The management of central or intracapsular fracture of the femoral neck will always be difficult, because of the age at which they occur and the great tendency to nonunion.

The old policy of neglecting the fracture, to "save the patient," would seem to defeat the very purpose for which it is employed. The severe and constant pain produced by movement in the fracture, inflicted upon an already feeble patient, often produces a degree of exhaustion which readily leads to pneumonia.

Primary shock having been alleviated, immediate reduction and adequate retention is imperative. The necessary manipulation, consisting of traction, abduction and internal rotation (Whitman), can usually be done under local or spinal anesthesia. A properly applied plaster cast, cut away in front to the anterior superior spines laterally, and to the symphysis medially, allows the patient to assume a semi-sitting position, to exercise and be turned on his sides or abdomen at regular intervals. An almost immediate cessation of pain is the gratifying and important result. Check-up x-rays should include a lateral study in addition to the usual posterior stereo.

This method of treatment represents a great advance over the "neglect the fracture, save the patient" régime, but has the disadvantages of prolonged immobilization and an incidence of nonunion of about 50 per cent.

It is now some ten years since Smith-Petersen of Boston devised his triflanged metal pin for fixation of these fractures. His original technique for placing the pin necessitated wide exposure of the hip-joint, thus limiting its field of usefulness. Sven Johansson of Göteborg has recently suggested an extra-articular method of placing the pin, which is so simple and atraumatic that it can be used on the feeblest of patients.

The patient is placed on the orthopedic table, spinal or local anesthesia given, the fracture reduced in the usual way and x-rays taken. The great trochanteric region is exposed through a short incision parallel to the shaft, and two or three stainless steel wires are introduced in a horizontal plane so angled as to pass through the neck into the head. Posterior and lateral